Proximity Sensor :

A proximity sensor is a device that can detect or sense the approach or presence of nearby objects.

Activity\_main.xml:  
*<?***xml version="1.0" encoding="utf-8"***?>*<**RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"**>  
  
 <**TextView  
 android:id="@+id/sensorOutput"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Waiting for sensor data..."  
 android:textSize="20sp"  
 android:layout\_centerInParent="true"** />  
</**RelativeLayout**>

MainActivity.java:  
  
**package** com.example.myapplication;  
  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.hardware.Sensor;  
**import** android.hardware.SensorEvent;  
**import** android.hardware.SensorEventListener;  
**import** android.hardware.SensorManager;  
**import** android.widget.TextView;  
  
**public class** MainActivity **extends** AppCompatActivity **implements** SensorEventListener {  
  
 **private** SensorManager **sensorManager**;  
 **private** Sensor **proximitySensor**;  
 **private** TextView **sensorOutput**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 *// Reference to the TextView in the layout* **sensorOutput** = findViewById(R.id.***sensorOutput***);  
  
 *// Initialize sensor manager and proximity sensor* **sensorManager** = (SensorManager) getSystemService(***SENSOR\_SERVICE***);  
 **if** (**sensorManager**.getDefaultSensor(Sensor.***TYPE\_PROXIMITY***) != **null**) {  
 **proximitySensor** = **sensorManager**.getDefaultSensor(Sensor.***TYPE\_PROXIMITY***);  
 } **else** {  
 **sensorOutput**.setText(**"No proximity sensor found!"**);  
 }  
 }  
  
 @Override  
 **protected void** onResume() {  
 **super**.onResume();  
 *// Register sensor listener if sensor exists* **if** (**proximitySensor** != **null**) {  
 **sensorManager**.registerListener(**this**, **proximitySensor**, SensorManager.***SENSOR\_DELAY\_NORMAL***);  
 }  
 }  
  
 @Override  
 **protected void** onPause() {  
 **super**.onPause();  
 *// Unregister sensor listener to save battery* **sensorManager**.unregisterListener(**this**);  
 }  
  
 @Override  
 **public void** onSensorChanged(SensorEvent event) {  
 *// Update the TextView with the current sensor value* **sensorOutput**.setText(**"Proximity Sensor Value: "** + event.**values**[0]);  
 }  
  
 @Override  
 **public void** onAccuracyChanged(Sensor sensor, **int** accuracy) {  
 *// You can react to sensor accuracy changes here if needed* }  
}

Output:

A screenshot of a device

AI-generated content may be incorrect.